

In the Claims

Please amend the claims as follows:

- 1-4. (Canceled).
5. (Currently Amended) An *in vitro* method of altering the amount of a DNA repair polypeptide in a cell, comprising:
 - (a) providing a transformed host cell comprising an isolated nucleic acid molecule comprising a nucleic acid segment encoding a vertebrate DNA repair polypeptide having a molecular weight of about 95000 Da as determined by SDS-PAGE, operably linked to a promoter functional in the host cell, wherein the DNA repair polypeptide is associated with the Mre11/Rad50 complex, wherein the nucleic acid segment comprises SEQ ID NO:1 or encodes SEQ ID NO:2; and
 - (b) expressing the nucleic acid molecule in the transformed host cell as recombinant DNA repair polypeptide, wherein the amount of the recombinant polypeptide produced by the transformed cell is different than the amount of the DNA repair polypeptide produced by a corresponding untransformed cell.
6. (Currently Amended) An *in vitro* method of altering the amount of a DNA repair polypeptide in a cell, comprising:
 - (a) providing a transformed host cell comprising a DNA segment molecule comprising the complement of at least a portion of a nucleic acid molecule comprising a DNA nucleic acid segment encoding a vertebrate DNA repair polypeptide having a molecular weight of about 95000 Da as determined by SDS-PAGE, operably linked to a promoter functional in the host cell, wherein the DNA repair polypeptide is associated with the Mre11/Rad50 complex, wherein the DNA segment comprises SEQ ID NO:1 or encodes SEQ ID NO:2; and
 - (b) expressing the DNA segment in the transformed host cell as antisense RNA so as to decrease the amount of the DNA repair polypeptide in the transformed cell.

7-19. (Cancelled).

20. (Previously Presented) An *in vitro* method of altering the amount of a DNA repair polypeptide in a cell, comprising:

- (a) providing a transformed host cell comprising an isolated nucleic acid molecule comprising a nucleic acid segment for a vertebrate DNA repair polypeptide having a molecular weight of about 95000 Da as determined by SDS-PAGE, operably linked to a promoter functional in the host cell, wherein the DNA repair polypeptide is associated with the Mre11/Rad50 complex, and wherein the nucleic acid segment comprises SEQ ID NO:1; and
- (b) expressing the nucleic acid molecule in the transformed host cell so as to alter the amount of the DNA repair polypeptide in the cell.

21. (Previously Presented) An *in vitro* method of altering the amount of a DNA repair polypeptide in a cell, comprising:

- (a) providing a transformed host cell comprising an isolated nucleic acid molecule comprising a nucleic acid segment for a vertebrate DNA repair polypeptide having a molecular weight of about 95000 Da as determined by SDS-PAGE, operably linked to a promoter functional in the host cell, wherein the DNA repair polypeptide is associated with the Mre11/Rad50 complex, and the nucleic acid segment encodes SEQ ID NO:2; and
- (b) expressing the nucleic acid molecule in the transformed host cell so as to alter the amount of the DNA repair polypeptide in the cell.

22. (Previously Presented) The method of claim 5, 6, 20 or 21 wherein the host cell is a mammalian host cell.

23-25. (Cancelled).

26. (Currently Amended) An isolated transformed host cell comprising an isolated a recombinant nucleic acid molecule comprising a nucleic acid segment encoding a vertebrate DNA repair polypeptide having a molecular weight of about 95000 Da as determined by SDS-PAGE, or the complement of at least a portion of the nucleic acid segment, operably linked to a promoter functional in the host cell, wherein the DNA repair polypeptide is associated with the Mre11/Rad50 complex, wherein the nucleic acid segment comprises SEQ ID NO:1 or encodes SEQ ID NO:2.
27. (Previously Presented) The transformed host cell of claim 26 which is a mammalian cell.
- 28-29. (Canceled).